Yankee Clipper Contest Club

Scuttlebutt

No. 74 April 1988

Captain's Cabin

Bill Pedersen, KM1C

The major portion of the YCCC 1987-88 Contest Season is now over. The Club has had excellent results reported in both the CQWW and ARRL DX Contests. We are running close to dead-even in our competition with the FRC for reported scores in the CQWW. We are going to have to wait for published results to find out the winner. Meanwhile, we have bettered our 1987 winning score of 42,740,277 points in the ARRLs: the 1988 ARRL scores reported to Jeff, NK1F (YCCC Scorekeeper), already total more than 75.7 million points, 33 million more than last year! I don't know at this point how we stack up against the FRC for the ARRLs, but the 77.3% improvement should put us in a good position! Congratulations to all participants regardless of large, medium or small scores. It is this type of team effort that will put the YCCC at the top of the Unlimited Category Contest Clubs for a long time to come.

A brief note on score reporting: Please forward your scores directly to NK1F via packet, telephone, 3830 KHz after the contest, or via the U.S. Mail. The Club is too large an entity to expect the area managers to try to track down the scores. Some of them would have to make more than 40 phone calls! Also, there is still time to get your ARRL Logs to the League: CW and SSB deadline is a postmark by April 6, 1988.

QST...QST...QST...The YCCC Packet Network is going into Phase II! KY1H and K1EA are currently hard at work on developing a staggered backbone network on 220 MHs to link the various clusters/nodes established throughout our territory. Look for some 2 meter frequency changes, too, as the entire system is upgraded to a much higher level of efficiency both in terms of high-volume through-put and timely retransmission of announcements and DX reports. Also involved are AK1A, KB1H, K1FWE, W1RR, N1CQ, W1RM, N1TZ, KA1CI, and K1KI. Check 21300.0 on Monday nights at 9:00 PM EST for updates on the Packet Network. Your local node/cluster sysop may be in need of some financial assistance, too, as he invests to upgrade the system. Contribution programs may be set up as has been done in the past to support local repeaters. Another $20 to $50 from each packet user is a small sum compared to the overall investment, yet it will help to substantially upgrade your packet capabilities. New members should try to find out who is on packet in their area and get a demo of its capabilities. It is a mode that enhances DXing, Contesting, and Club communications to a phenomenal degree. It also happens to be fun!

Between now and next October is the time to be thinking of upgrading the various parameters of your own station: Think and do something about antennas, transceivers, amplifiers, packet, etc. Good stations do not happen by accident: they happen by design and long term effort. A good station not only provides points for the Club – it offers many rewarding hours on the bands and an overall sense of pleasure within

this great hobby. New members should not be afraid to ask for some assistance from some of the OTs within the Club. There is plenty of advice out there just waiting to be tapped! (Not to mention actual help in putting up antennas, setting packet parameters, etc.) If you need the help, ask for it! We all had to start somewhere, and many members enjoy passing along tricks of the trade to their new or old friends within the Club.

The upcoming meeting at Sturbridge is, of course, the April election meeting. I am pleased to report that we have a full slate of Officers and Appointees willing to serve the YCCC for the 1988-89 Contest Year:

Officers:	President:	Fred Lass	K2TR
	Vice-pres.:	Jack Schuster	W1WEF
	Secy/Treas:	Charlotte Richardson	KQ1F
Appointees:	Editor:	Paul Young	K1XM
	Scorekeeper:	Jeff DeTray	NK1F
	Packet Coordinators:	Dave Robbins Ken Wolff	KY1H K1EA

Please come to the meeting prepared to offer your support and vote for the above members. The list, of course, is not exclusive. If there is someone you would particularly like to see in any of the above positions, please determine first that they would like to run. The meeting till be open for nominations and the full voting process.

It has been a pleasure serving the YCCC for this past year. Many of the goals that I had in mind for the Club have been met or are in progress. I would like to thank everyone for their participation and help. particular thanks go to: Tom, K1KI, who organised great meetings and me lots of good "behind the scenes" tips on Club organization, Paul and Charlotte, K1XM and KQ1F, who give the Club excellent continuity in their longstanding service, Jeff, NK1F, for developing and expanding the Scorekeeper's role, important to a successful Contest Club, and, of course, Dave, KY1H, and all the others who have kept Packet expansion within the Club at the forefront, recognizing that this mode is what ties our widely scattered territory into a cohesive group of Contest Operators. I look forward to a long association with the Yankee Clipper Contest Club and wish each of you the best for the new contest year.

Thanks and 73...Bill, KM1C

Floating
Paul Young, K1XM

Another contest season shot. One of these years I will have to learn how to run people from my home station, and how to find a CQ frequency on phone.

Bob, KQ2M, asked me to add a "thank you" in the **Butt** to Bill, KM1C, and to Joe, KM1P. Bob's TS-930 was stolen last fall when he went to Ecuador, and Bill helped look for a rig for him to use in the ARRL contest. Joe, having never met him, loaned him his rig. This is the kind of spirit the YCCC needs more of!

Just a reminder - dues are due at the next meeting. If you can bring the correct amount it will be a big help.

Thanks to Radiokit and KM1H for paying postage for this issue.

Next Meeting
Paul Young, K1XM

The next meeting of the Yankee Clipper Contest Club will be on Saturday, April 9, 1988, at the Sheraton Sturbridge, beginning at 1 pm.

The Sheraton Sturbridge Resort and Conference Center is located on Route 20 in Sturbridge, Massachusetts, $\frac{1}{2}$ mile West of I-84 (first exit off I-84 when coming South from the Mass. Turnpike). Directions to the Sheraton are easy: Exit I-84 on to Route 20 West. You will pass through two sets of stoplights while noticing several motels on your right. Make a right turn just prior to the Burger King sign. This is the entrance to the Sheraton, and there is plenty of parking in front of the hotel.

The meeting dates for 1988 are:

DATE	DAY
April 9, 1988	Saturday
June 5, 1988	Saturday
August 6, 1988	Saturday
October 1, 1988	Saturday
December 4, 1988	Sunday

Note that the October meeting will be at the ARRL New England Division Convention at Boxboro.

Secretary's Report
Yankee Clipper Contest Club

The February YCCC meeting was held at the Sheraton Sturbridge on 6 February 1988 with 74 members, their families, and many guests in attendance. After introductions of members and their plans for the upcoming ARRL DX Contests, we held a short business meeting. The club treasury stood at $50.36, with $202.50 for postage for **Scuttlebutt** 73 to be refunded by Cushcraft. Club Scorekeeper Jeff, NK1F, gave a CQ score update, with 135.5 M accounted to the Club so far, with more points of CW than on SSB. Jeff pushed for more participation on SSB in the ARRL DX Contest, and reminded the members to send their raw scores to him as soon as possible after the contest as well as a copy of the summary sheet when they submit the logs. Bob, KQ2M, is looking for a TS-930S he can borrow for both ARRL DX Contests (his was

stolen en route to his HD5X operation). Bill, KM1C, is looking for ideas on an alternative to the Sheraton Sturbridge for the August barbecue meeting, possibly at the QTH of Fred, K2TR, or at a state park. He is also looking for amateur suppliers to advertise in the **Scuttlebutt** to pay the postage costs. See Bill, K1GQ, soon to order club QSLs, as the price is likely to go up. Do not ask K1AR for a while: a congratulations card for John and his wife was circulated during the meeting; the K1AR multi-op is now fully-staffed with the birth of a daughter. Rich, K1CC, and Fred, K1VR, are putting together a deal on PC Clones for $900 if they order five or more (which is probable). The club welcomed fifteen new members:

Donald V. Tanguay, N1BVZ
Garry P. Anderson, Sr., WB1DGV
John R. Fowler, KA1ION
Philmore Smith, KA1MP
T. Scott Johnson, KA1QXI
Steven Elkind, KB1RB
Bob DeBragga, W1RT
Michael H. Ralsbeck, K1TWF
John Sykes, Jr., KB1WH
Joe Hoodak, WA2LGT
Charles Stover, KI2P
John Hennessee, KJ4KB
Bill Hamley, KC8PE
Eric Smitt, K9ES
Jay Mabey, NU0X

The proposed Bylaws change passed. Dues are increased to $15 per year effective with the 1988-89 dues (payable at the April elections meeting). Subscriptions remain at $10, student dues at half of regular dues (now $7.50), and additional members in the same family at one address are free. There will be no more club luncheons at the Sheraton Sturbridge before the meetings. Bill, KM1C, suggested that members instead meet at Rom's.

Bill, KM1C, reminded everyone that the April meeting is the election meeting. Clark, K1JX, has the ARRL Operating Manual logging program (he was not able to attend the meeting, however); interested members should talk to Tom, K1KI. Tom, K1KI, also reminded members that the NCJ CW Sprint started that evening at 7 pm local time, for members who were able to get home that early, and reminded everyone to be sure to try to work him.

Following this regular business, Tom, K1KI, introduced the afternoon's program.

Dave, KY1H, spoke on the packet spotting network and on NET/ROM and KA-NODE, followed by Doug, WB2KMY, on the 220, 450, and 2-meter packet net connecting the East Coast and on improvements you can expect soon.

New member Scott, KA1QXI, who is a doctor, spoke on sleep deprivation strategies for how to sleep 4 hours out of 48. This is the first program we can remember where the majority of those present took notes! After a brief overview of the physiology of sleep, he gave his recommended schedule. For those who missed it, it is as follows. The afternoon of the day the contest starts, plan on a three-hour nap, preferably around 4:30 to 7:30 PM, after having a reasonably good meal (no alcohol). When you get up, have some coffee. Eat no large meals during the contest, just snacks with high carbohydrates, low fat, and reasonable protein. Two hours before your normal waking time, take a 90-minute nap (this allows a full sleep cycle so that you will wake up refreshed), or sleep for 180 minutes. Then have another cup of coffee. Only drink coffee when you awaken from your naps; otherwise you will have trouble falling asleep and will not awaken rested when you do sleep. The first afternoon of the contest, schedule a 30-minute nap for sometime between 3 and 4 PM. Take another 90 or 180 minute nap the second morning. Optionally take another nap the second afternoon. Avoid alcohol during the contest. Avoid heavy physical activity (like tower work) right before the contest since it promotes deep sleep. Keep the shack brightly lit to keep you alert, and when you do nap do so in a darkened room. Keep the shack warm, 72 to 74 oF, since low body temperature encourages sleep.

After a short break, the 50/50 raffle put $37.50 into the pocket of new member Garry, WB1DGV. Then Ken, K1EA, presented his famous CW copying contests. John, KB1T, had Contest Calendars for sale for $9 (usually $9.95). Then Mark, K1RX, showed slides of his 1986 CQ WW SSB trip to KP4BZ, where he operated multi-single, and his April, 1987, visit to KH6XX on Oahu.

After this, members adjourned to Rom's and other eateries for much-needed refreshment!

Respectfully submitted,
Charlotte L. Richardson, KQ1F
Secretary/Treasurer
8 February 1988

Review of the Henry 3K Classic Mk III Amplifier

Richard King, K5NA

Preface

When Paul, K1XM, first asked me to write a review for the special order Henry 3K Class Mk III, I was a little apprehensive about doing so. I was concerned whether I could be objective while providing an evaluation of the amplifier. Since Susan, KU2Q, and I purchased the new amplifier last year, we have been generally dissatisfied with our unit. Having owned two Henry

Radio 2K-4's for over 10 years, this dissatisfaction was a surprising result. My old 2K-4's had made me an advocate of Henry Radio amplifiers and the problems we experienced with the 3K Classic Mk III were unexpected. Many of the quality comparisons in this review are comparisons that I will make between the 3K Classic Mk III and my 2K-4's. We are, at this writing, awaiting a response from Henry Radio about return procedures for us to return the unit and get a full refund.

Though many believe that the 3K Classic Mk III was a prototype for the new Henry Premier series, it is Henry Radio's claim that this is not the case. Other users have also had problems with the 3K Classic Mk III so it is in Henry Radio's best interest to disassociate the two units from one another. However, it appears to me that the two units are almost identical in design except for the addition of QSK on the Premier model. Having not used a Premier model, I will leave it to the reader to form his own opinions about the similarities. Also, I know that other buyers of this unit have experienced problems, but I will only offer details on the problems that I have experienced first-hand.

The Amplifier Specifications

The Henry Radio 3K Classic Mk III is a 190 lb floor console amplifier that includes 160 meters and has the cosmetic appearances that you have come to expect from Henry Radio amplifiers. The power supply voltage output is switchable for CW (2700 volts) or SSB (4200 volts). The amplifier allows for metering of plate current, plate voltage and grid current only. I miss the relative power output metering that is available on my 2K-4's. The amplifier also has a standby/operate switch that I always wished I had on the 2K-4's.

The final tube supplied in the 3K Classic Mk III is an Eimac H-800S (also called the YU-121). The buyers of the special order amplifier had originally specified that they wanted a 3CX1200A7 or 8877. However, Henry Radio switched the final tube with the claim that the H-800S exceeded our specification requests. The H-800S tube is rated at 750 watts plate dissipation which naturally caused us some concern. However, Henry Radio and Eimac claim that the plate fins on the H-800S have been designed to allow a larger amount of air flow to efficiently conduct away the heat so that the tube can operate in the 1500 watt output range.

The Shipping Package

The shipping packaging was not adequate. The 190 lb. unit arrived in a heavy cardboard box with the amplifier sitting on a styrofoam pad inside the box. On our unit, the cardboard box looked OK, but the styrofoam pad was crushed into pieces. The trucking companies have a habit of dropping their freight straight down on the pads. The resultant damage is usually not obvious at delivery without removal of the covers. Our unit suffered a warped chassis and bent screws holding the power supply cover. Also, the filament choke had broken loose and had fallen down into the blower assembly and was fouling the air sensing switch. In addition to this, there is a gap between the back cover and the top of the power supply large enough for small metal objects to fall into. This may not, however, be due to shipping damage but rather to poor alignment in manufacture. I believe that Henry Radio should ship the amplifiers with better base pads which would cushion drops during shipping.

Operation

When operating properly the amplifier will deliver 1500 watts to an antenna with 100 watts of drive. The large amount of air-flow seems to help keep the final tube sufficiently cool. With more drive the amplifier is capable of a maximum of about 2000 watts output. So the amplifier is not being pushed at 1500 watts and should perform well at that level in contests. The H-800S is rated as an instant-on tube so you don't have to wait 3 minutes to bring it on-line like the 3CX800A7 and 8877.

The amplifier has tuned inputs that seem to be well set-up from the factory. However, they are located under the side cover of the console and not accessible during power-on operation. The RF deck would have to be removed for their adjustment. On the 2K-4, you can adjust the tuned inputs during operation.

Tuning and changing bands cannot be done very quickly because the tuning is accomplished by variable inductor driven by a reduction gear assembly. A QSY from 10 to 160 meters takes a lot of effort.

Quality Issues

- The air blower is extremely noisy making it near impossible to operate without headphones and difficult to hear even when using headphones.
- The plate choke overheats when operating on 15 meters. Mine opened up the first time I tried it on 15 and had to be replaced. Henry Radio immediately replaced the choke at no charge after a phone call to them. The second plate choke seems to be holding up OK.
- The amplifier then stopped working with no output. Henry Radio replaced the RF deck with a working unit at no charge to me. However there was a two week delay before a new unit was available to be shipped. The new unit had to be provided without a new H-800S tube because there were no spare replacements available.

- There is a complete lack of safety interlocks in both the RF and power supply areas. A safety interlock is shown in the circuit diagram for the RF deck but was never installed in either of my RF decks received from Henry Radio. The 2K-4 does have safety interlocks.
- The plate loading capacitor and indicator do not have a stop at the minimum capacity point. This allows the indicator assembly to go around twice as the capacitor makes one full revolution. As a result, you will get the same numerical indicator reading for two different values of the capacitor. This sometimes causes an error in the preset positioning.
- There is no over-current relay protection as found in previous Henry Radio amplifiers. Only a cathode fuse is provided.
- The loading capacitor was not factory aligned to maximum capacity at the loading indicator stop position. it seemed to be set at approximately mid-capacity. Both the first and second RF decks were received from Henry Radio with this problem. I made the alignment correction on both RF decks. However, this required disassembly and removal of the RF deck from the amplifier console.
- The plate tuning gear assembly is of inferior quality and does not mesh well. Mine fell apart twice in the first RF deck before I managed to machine grind a spacer to smooth out its operation to make it work better. The assembly on the second RF deck worked better for a while and then the drive shaft for the tuning gear assembly bound up in the chassis sleeve. The problem seemed to be caused by galling between dissimilar metals. I fixed the problem (at least temporarily) with a little WD-40 after taking the assembly apart. Once again, this required disassembly and removal of the RF deck from the console. There was no evidence of outside contamination of the shaft or the sleeve.
- Cover screws for the RF deck do not line up well. It is difficult to replace the cover after servicing. The second RF deck is not as bad as the first.
- The band-switch is very light and hard to turn when changing bands. Susan, KU2Q, has to use both hands and struggle to turn it.

Conclusion

The amplifier seems to be a workhorse as far as operation in concerned. The power supply is extremely heavy duty and typical of Henry Radio amplifiers. In spite of being a tube with only 750 watts of dissipation, the H-800S doesn't appear to be hard-pressed to put out 1500 watts in a contest environment. For maximum legal output, only about 100 watts of drive is needed. The components within the amplifier are well laid out in a roomy environment. It will not be difficult to access and repair components within the amplifier. For maintenance, the RF deck can be removed in about 15-20 minutes once you get the hang of it (and you will).

On the negative side, the blower noise will drive you up the wall. The only cure would be to use headphones that seal out all outside noise or to locate the amplifier well away from the radio (another room would be best). I find that the headphones that seal out room noise are very uncomfortable for long hours of contesting and therefore impractical for my use.

The mechanical mechanisms on the RF deck are of poor quality. The band switch is very difficult to turn. The tuning gear assemblies are prone to binding or falling apart. The tuning mechanism takes a long time to change bands (many turns). it would be best to use this amplifier on one band so that it would never be necessary to re-adjust any of the mechanical parts.

The maintenance documentation for the RF deck is terrible. It is inaccurate, shows safety interlocks where non exist, provides no tube specification data, has no location information for component identification, and the published tuning pre-sets don't seem to be close to the real settings after tuning up. The power supply information seems to be the same as that for the 5K Classic amplifier and is provided within the 3K/5K Classic Operating and Maintenance Manual. However, it is not completely clear whether they are exactly the same.

In spite of all my quality issues, the price seems to be competitive for what you are getting. Maybe I was expecting too much from Henry Radio based on my experiences with, and the quality of, my 2K-4's. Perhaps the use of higher quality components within the RF deck would significantly raise the price of this amplifier and take it out of the reach of many. If you are not afraid to tackle the mechanical problems and are prepared to live with the high noise level, then this amplifier could be a good buy for you. In any event, I expected higher quality in a Henry Radio amplifier than this one provided.

Editor's note: I called Henry Radio and asked them about these amplifiers. They told me that they **were** prototypes for the new premier line, and that the differences were QSK and some circuit changes. They also said that the new line was on hold because they are too busy with their commercial sales to introduce a new line of amateur amplifiers. They are also considering changing from the H-800S to a 3CX1200A7.

IC-761 Test Results

George Cutsogeorge, W2VJN

(reprinted from **The Frankford Radio Club Newsletter**, February, 1988.)

Receiver Characteristics

Sensitivity:

SSB noise floor	= -124.0dBm @ 28mHz. Preamp out = -134.0dBm @ 28mHz Preamp in
CW noise floor	-131.0dBm @ 28mHz. Preamp out -141.0dBm @ 28mHz. Preamp in

(This represents a 6.5 dB noise figure with preamp in and 16 dB with the preamp out.)

Selectivity:

Small signal, AGC off, SSB	= 1890Hz @ -3dB
Small signal, AGC off, CW	= 450 Hz @ -3dB
Large signal, AGC on, S9+20 sig, SSB	= 2.0KHz @ -3dB
Large signal, AGC on, S9+20 sig, CW	= 0.57kHz @ -3dB

(CW measurements with stock filters.)

Blocking:

An S5 CW signal at 7 mHz with the preamp out is degraded 1dB by a strong signal as follows:

Spacing	Level	dB above Noise Floor
5kHz	-14dBm	117
20kHz	+3dBm	134
100kHz	+15dBm	146

Third Order Intercept:

Tone Spacing	Preamp off	Preamp on
20 kHz	10dBm	-
100kHz	+24dBm	+12dBm

AGC:

Threshold = 0.9uV with preamp in. AGC is very clean. There are no pops, clicks or overshoots on cw fast or slow AGC.

Phase Noise degradation on noise floor:

14mHz, CW, signal = +100dB above noise floor.

Offset	Degradation
3kHz	5dB
5kHz	1.5dB
10kHz	1dB
15kHz	-1dB (output drops AGC on or off)

Transmitter Characteristics:

Keying:

Rise time=5ms and fall time=2ms. There are two mods to the keying waveform not installed in this radio.

Amplifier relay:

The relay closes about 5 milliseconds after the key is pressed and RF begins at 15 milliseconds. An accessory socket provides +8 on transmit that may be used for QSK directly.

Harmonics:

Band	2nd	3rd
7mHz	-64dB	-72dB
14mHz	-66dB	-56dB
21mHz	-54dB	-64dB
28mHz	-52dB	-49dB

Spurs: No spurs were found above -70dBC.

Power Output:

Band	Output
1.8mHz	97 watts*
3.5mHz	100 watts
7.0mHz	102 watts
14.0mHz	105 watts
21.0mHz	104 watts
28.0mHz	101 watts

* Bird wattmeter only accurate to 2.0mHz.

SSB Power Output:

Measured with white noise on the mike input and a Bird wattmeter on the output to a 50 Ω load.

ALC @ 20dB, compressor off.	P out = 20 watts ave.
Compressor on and @ 20dB.	P out = 31 watts ave.

COMMENTS

Good Features:

1. On CW either or both CW filters or the SSB filters may be used.
2. The QSK is smooth and the RCVR sounds good on CW.
3. The third order intercept is very good.
4. The phase noise performance is as good as I've seen in a synthesized commercial radio.
5. The AGC performance is very good.
6. Thirty-two memories are selected with a detented rotary switch. A large readout indicates the memory in use.

Not-so-good Features:

1. The IF-shift/Passband tuning is designed poorly. In the PBT position turning the knob narrows the bandwidth and shifts the peak frequency at the same time. The operator must retune the signal after changing bandwidth and copy at a new pitch. In IF-shift the

9mHz filter is bypassed and the selectivity is severely degraded. Off channel signals are clearly audible out to several kilohertz.
2. The SSB talk power with processing is down about 2dB compared with the Kenwood radios (830, 930, and modified 940).
3. When changing bands the VFO is always reset to 49kHz from the low end on CW and 47kHz on SSB. Very annoying.
4. This is a big radio. One inch wider, 0.3 inch taller and almost 2 inches deeper than a 940. And it has no handle.
5. A number of modifications have been announced by ICOM.

Sharper SSB Filters for TS930

Tony, WB2P

(reprinted from **The Frankford Radio Club Newsletter**, February, 1988.)

To sharpen up the SSB slope-tune on a 930 to make it feel and sound like a 940, install 940 SSB filters in your 930. International Radio and Computer, Inc., 747 South Macedo Blvd., Port St. Lucie, FL 33452 (305-879-6868) sells used filters to do this. Replace the YK88S2 with YK88S1 ($40.00) and replace the CFJ455K13 with CFJ455K12 ($15.00). They are direct replacements and no alignment is required. However, the signal board must be removed to get at the filters.

Notes on the DVK-100 Digital Voice Keyer

Jack Schuster, W1WEF

Now that I've overcome initial problems, the DVK-100 has become as handy a gadget to phone contesting as the memory keyer to CW contesting. I thought I might save someone the trials and tribulations I went through by passing on the results of my experiences with the unit.

The major problem I encountered from the start was severe audio distortion, especially when playing back a recorded message. I found a wide range in signal quality among other DVK users on the air, some with quite good audio and some with distortion as bad as mine. I was convinced for a while that the problem was my voice and I was just not destined to be a phone contester in this age of digital technology!

I was using my Beyers headset, with a matching transformer and series capacitor to roll off the lows, just as I did with my 830S. A D104 with ceramic cartridge produced the same results, and a friend with a crystal D104 had similar distortion problems.

To make a long story short, the problem turned out to be that the DVK doesn't want to see a mic impedance greater than about 1000 ohms. Although my Beyers mic was 200 ohms, the matching transformer stepped it up to about 10K. The solution was to put the matching transformer at the DVK output, and connect the mic directly into the DVK.

The membrane keyboard on the DVK-100 offers no tactile feedback, and makes it necessary to look at the keyboard in order to hit the correct switch. After operating a few contests with cork protector pads stuck on the switches to allow easy location, I added two N.O. momentary pushbuttons in parallel with the 16 and 8 second message membrane switches (Radio Shack submini SPST cat. no. 275-1571). The switches fit nicely on the sloped portion of the DVK front edge, just below the message membrane switches.

With the DVK bottom removed, locate the ribbon cable connector into which the ribbon cable from the membrane key pad plugs. Looking at the underside of the PC board, with the key pads towards you, the righthand pin on the bottom of the ribbon connector is common. This connects to one side of the two pushbutton switches. The adjacent pin connects to the 16 second switch, and the next pin to the 8 second switch. Use care in soldering, to avoid lifting the etch. If all four membrane switches are to be brought out, the next two adjacent pins go to the remaining message switches.

NP4A – The Hard Way
A Three-Part Trilogy
Part III & Conclusion

Jeff Briggs, K1ZM

Author's Note: In the last installment I related part two of the story of what was supposed to be a routine visit to NP4A to operate in the January 1987 CQ/160M/CW Contest. A major January snowstorm, however, got in the way, causing me to be stranded at JFK airport trying to get to NP4A. After a gut-wrenching 16 hours at the airport, including sleeping on the floor in a three-piece suit, I had managed to crash the pileup and with much chicanery make it on a plane to SJU. In this final installment the story continues with me wending my way down to Ponce and trying to *begin* a contest with literally no sleep in 48 hours!! – K1ZM

Having actually made it on the plane, I tried to relax – but it was impossible. I was too keyed up! Thoughts were racing through my mind such as "This is a DC-10 – I *never* fly DC10's – aren't these the planes where the engines fall off?" Or, I hope this flight gets out of here – the contest starts at 6 PM in Ponce and I am scheduled to touch down at 12:30PM. I've got to get my bags, rent a car and drive 2 $\frac{1}{2}$ hours down to

Ponce. Then I've got to negotiate that treacherous stretch of road up the mountain to Pedro's. In this condition, will I make it – can I actually stay awake? I mean, I already really feel like sh-t, and I must smell like Ayatollah Khomeini – like an Iranian goat. This is really insanity!!!

I tried again to sleep, but no way – maybe I got 30 minutes somewhere. Besides, the plane had taken off 45 minutes late due to icy runways and airport congestion. It was going to be *really tight* at the Ponce end! A real squeaker.

At 1:30PM I got to SJU. I raced through the baggage claim, ran over to Herts and called Pedro on the 2M repeater. He was really glad I'd made it and directed me out of the airport and onto the autopista to Ponce. While I had been to Pedro's many times before, this was my first time solo – and I didn't have a clue how to get there – thank God for 2m FM!

Staying awake on the autopista was a real trip. Fortunately, Pedro became my co-pilot on 2m (until I hit a dead zone in the mountains half way there). I stopped at a toll booth and something really comical occurred. I needed change for the 25-cent toll. I was so tired that I didn't realize the clerk had given me back four quarters change for a dollar. I threw the change on the seat and raced forward smashing into the toll barrier. What I was *supposed* to have done was deposit 25 cents into the hopper, let the gate go up and then proceed. Instantly I was surrounded by several KP4 policia who were none too pleased about this NY "gringo" having just smashed into their autopista gate. They muttered a few things back and forth in Spanish but since I hadn't done any real damage to the gate, let me proceed. They did mutter in broken English a few choice words like "Hey you a–hole, you're supposed to pay the toll *first* – then go through the gate!!" I felt like a real jerk and didn't say anything to Pedro about this. But, we don't do it that back in New York. When you need change for a toll, they take your dollar, subtract the toll amount and then give you back whatever change remains. How was I supposed to know? There is often no barrier – but in this case I was too tired to know what I was doing anyway.

To add insult to injury, when they let me proceed I forgot to close the car door fully and as I pulled away I scraped the Hell out of the door chrome against a concrete pillar in the gate area. This just *wasn't* my day.

In about fifteen minutes I had crossed the mountains and headed down toward Ponce. I was again in range of the repeater and Pedro decided it would be best if he met me near the Ponce exit of the autopista. We decided to meet at a Burger King so I could get a burger, fried, and soda. I was both hungry and *very tired.*

We left the Burger King about 4:30 PM for the hour's drive up the mountain to Pedro's home. The road is in poor repair (as anyone knows who's ever been to NP4A). it is wide enough for about 1 $\frac{1}{2}$ cars and whenever you have to pass someone coming in the opposite direction you have to pull off the road with your righthand wheels. This doesn't sound too bad except when there are gigantic potholes off the road in many places, there is little or no shoulder, and there are many places where there are 1000' drops off cliffs – which makes this part of the trip dodgy at best. If you pull off the road in the wrong spot you wind up in Silent Keys instead of in the 160 Contest results!! I let Pedro run interference in front of me in his Blazer and asked him not to go too fast so I could follow safely.

At 5:30 we arrived at the mountaintop. Pedro asked if I'd like a Corona or a Loewenbrau (both his favorites). I said I'd really like a hot shower and a change of clothes into my Tee-shirt and shorts. At that point my suit probably would have stood up by itself and I kept my distance because I knew I smelled really RIPE!

At 5:50 with ten minutes to go I programmed my keyer and looked for K2EK on 1.832khz. It was still broad daylight in Ponce, but, sure enough, Bill was 579 on an otherwise *totally quiet* band. I gave him a quick call and explained that I had just arrived. He said he couldn't believe it but wished me luck. I said the same and tried to organize my thoughts for how I would try to operate this contest. Pedro explained the six transmit antennas to me and how he had wired the six beverages. To listen on a beverage required that I manually switch to the beverages after every transmission. Pedro had not had time to wire the DIN plug on the TS-940. (Before the contest was over I must have worked that switch over 5000 times because listening on the transmit antenna in the Caribbean static was totally out of the question. I could copy K2EK okay, but the Europeans were too weak to be heard above the QRN consistently.)

Stopping at that Burger King quickly proved to be a major mistake. When you eat a heavy meal when you are as tired as I was all your blood goes to your stomach and your brain just fades away into RX white noise... At 2115Z I put my head down on the table and simply wiped out. Pedro woke me up with what was the first of many shakes on the shoulders. Coffee was out as I have developed an allergy to caffeine – so was Cola. Club soda or seltzer is the only way for me to fight off sleep and Pedro didn't have any of that. So, we substituted Corona beer and ice water instead.

In spite of this my first hour was a respectable 60 or so which I made by searching and pouncing up and

down the band. I called all the LOUD (?) 449 East Coast types who were coming into darkness. Some midwestern boys were also in there but they don't hear me too well in broad daylight. The start of a 160 contest in KP4 is funny indeed.

Europe was coming in now and I think I worked G3SZA, PA0HIP and a very loud UP1BZZ (ex-UK2BAS) on 1.831khz. I think he sat on that frequency the whole contest because he was still in there at UK2 sunrise some seven hours later. He was *still* there at 1930 the next afternoon, a full 2 hours *before* KP4 sunset the next day. What a signal!

My second hour was over 90 and now included some W9's and W0's and quite a few Europeans. I believe my rate hovered around 60-70 for the next eight hours and could have been higher, but I chose to transmit on a directional antenna that favored Europe – sacrificing the W/K rate to pick up as many 10 pointers from Europe/Africa as I could. I figured that CT3BZ/OH2BH, who had made about 775 QSOs the prior year in setting the record, had to have had nearly *all* ten point QSOs. This meant I would have to have as many ten point contacts as I could possibly scrounge up in order to have any chance of beating his 160m record score.

As the band really settled in, Pedro's fabulous antenna farm really started to cook. The rate wasn't that great – 60/70 or so but the EXOTIC multipliers really came out in force. In one stretch I worked all Asiatic Russians except UJ8 and even UV1OO/JFL checked in for a bonus. By full European sunrise I had nearly all the USA/Canadian multipliers in the log, many DX multipliers for a combined first night total of about 115 total multipliers.

When the Europeans die out on 160, the rate really goes down fast. What's left are puny weak W6/W7's that you can't hear very well in KP4. I've never figured out exactly why this happens, but these signals do seem to get lost in the Caribbean QRN in this period. It's very frustrating because I know Pedro's XMIT signal is something like 599+40dB all night long in the states. I apologise to those I couldn't hear. I know there were some who never made it into my log. And it wasn't due to lack of trying, either.

By 5:00 AM local, I was a total basket case – the lack of sleep, QRN and fatigue had finally overwhelmed me. After all, I had had only six hours sleep in 3 $\frac{1}{2}$ days!! In spite of this I struggled to at least make it to KP4 sunrise because I had made numerous skeds with JA 160 meter friends, many of whom needed KP4 for 160m DXCC. I expected that half of Japan would be looking for me at my sunrise and I surely didn't want to disappoint them *nor* miss the JA multiplier for the contest!

Just around sunrise Pedro arrived on the scene (probably to make sure I wasn't catching too many ZZZ's). I gave out a few calls on 1807khz QSX 1910 khz and within seconds I could hear the pile – it was HUGE – but all 229! Darn!! A few QRZ's and I managed to pull out my old friend Shu, JA6IEF, with a good signal. This was quickly followed by Yasuo, JA3ONB, a bit weaker but very copiable. It was now past my sunrise and I struggled to work a couple more before full daylight. Then I gave out a few more QSOs to W/K's and hit the sack for some MUCH NEEDED SLEEP!

In spite of all the fatigue, I had over 700 Qs in the log, tons of ten pointers and something like 115 total multipliers. Not bad for the first night. I was on target for a run at Martti's record score. I hoped the second night QRN would give me a break – because you never can be too sure in the Caribbean. If the QRN rears its ugly head, there goes the record, no matter what antennas you have or beverages.

Pedro let me sleep until about 4PM which means I caught a good eight hours. You have no idea how good sleep feels until you push yourself as hard as I had done. This contest may have been fun (it was) but it was also *torture*! There were still cobwebs in my head, but as I looked over the results I was very pleased with the first night's score. Pedro was *ecstatic*! We had worked WAC, 30 zones in one night, all states except Wyoming and all VEs except VE8 and VO2. We also had something like 65 DXCC countries the first night and four JA QSOs. We had good reason to down a few Corona beers together sitting in the sun on Pedro's rooftop porch.

The second night also proved to be excellent. Two hours before sunset K2EK was 559 on 1.831khz with UP1BZZ running Europeans right underneath him. They couldn't hear each other but I could hear them both. Yes, there is humor in 160m contesting! When I got home I let Bill in on this and he told me had heard traces of UP1BZZ. I found it very amusing from my end. Sort of like two ships passing in the night and neither seeing/hearing the other.

The second night really did bring me good fortune – the noise was down, I snagged many more ten pointers and another 23 multipliers including Wyoming. By morning I had over 1000 QSOs which isn't bad on 160m – even from KP4. Again, I looked for JAs at my sunrise. This time the pileup was massive. It stretched from 1909-1911 but, again, all sigs were 229 and the QRN at sunrise had picked up to over S-9. JA6IEF called in *again* to say hello (we figured he just wanted to be sure he was in the log). I also worked JA5DQH, JR1EBE, two *very loud* JA4's (CQS and LXY) and one or two more. Most JA QSOs were in the period ten minutes *after* sunrise and their signals peaked over

VK/ZL – a definite skew path over the Pacific. On the W6 beverage I couldn't even tell they were there. I guess this is why so few Caribbean stations have worked JA on 160 and vice versa – it is tougher than from the NE USA because it is so far to the Southeast and takes the best of antennas at *both* ends of the circuit – plus the very best of conditions and low absorption. Needless to say, the average bub with an inverted vee and a KW is not going to make the grade over this path!!

When it was all over I wound up with something like 1053 QSOs, 138 multipliers and 81 DXCC countries. I believe I had 425 ten point QSOs which wasn't quite up to CT3BZ's pace, but Martti was in Europe's back yard! I was 5000 miles away in the Caribbean! I don't think it is possible ever better the EU score by much. Hell, I worked 100 Gs, 75 OKs, and over 100 USSR stations, including every UB5/RB5 that moved! We had also worked KX6, KL7, ZL, ZS5, VS6. A bigger score from the Caribbean would take *some kind* of effort! Not to mention the nine JA QSOs under very poor JA-KP4 conditions. Total claimed score was just under 1 Meg – about 965K. I'm sure it will drop some under N4IN's careful scrutiny. I must have had a few busted calls in there, especially when you consider how exhausted I was. But since Martti's score was something like 750K, it looked like a new record for NP4A. Pedro was delighted, so was I, but glad it was finally over. I enjoy contesting, and love 160, but this contest was pain, more pain, and more pain – pure and simple!

I would have liked to have gone to sleep for a week, but I had a 1:20PM flight back to New York. So, it was back down the mountain and back to the airport with Pedro's help on 2m. This kept me awake and went smoothly. At the airport I almost lost my ICOM 2m HT when I forgot to take it out of my shirtpocket while going through airport security. These guys thought I was a terrorist and tried to rip off the battery pack before I could convince them I was totally harmless and not one of the Ayatollah's boys. There is a lesson here – put the HT in your suitcase I guess, and lock your luggage – things will go more easily for you.

When I got to New York, it was back to the "Train to the plane", back to Sleazy-Joe's garage, and back to the snow. I just hoped they were still open when I got there. Looking around, it had been *some* snowstorm. The drifts were about 3' deep and it was cold. I called my wife and told her I'd be home about 7:30; then set off the 75 miles North for home.

All in all, this had been quite an adventure. I had achieved my objective but at what a cost. I suppose I'll never go through anything like that again – contesters are indeed a crazy lot – there is a lot to be said for N2NT's *Contest Shock Syndrome*. I think I must have been injected with a megadose at birth!

I suppose the moral of the story is this – whenever one of your buddies tells you "getting there is half the fun" – think of this story, and let 'em know it ain't always so. Sometimes it can be an incredible adventure. Finally, would I do this all again?? Probably not, I hit 41 this summer and am getting too old for this kind of stuff! But it *was* fun – especially working those JAs on 160 at sunrise!!

This Roll of Coax is Plenty Long Enough – I Think

Bill Schrader, K2TNO

(reprinted from the Texas DX Society **Bullsheet**, September, 1987)

How many times have you said that, at Field Day or at the home QTH? I know I've stared at hunks of coax plenty of times, and wondered if I had enough for the run from antenna to rig. My guesses are extremely accurate, too – I always underestimate the roll by exactly five feet! (I think the double-female coax fitting was invented for people like me).

Here's a helpful tip or two to help you measure a coax roll accurately without the need to uncoil it. Just weigh it, or measure the capacitance of the roll! (The latter can be done easily if you own a modern digital multimeter with a capacitance scale – otherwise go to a bathroom scale).

I determined weight and capacitance of RG-213 and RG-8X, for several lengths I had available. The data are shown in the table below.

Belden Coax Characteristics*

Type	Weight/100 ft	Cap./100 ft.
RG-213	10.34 lb.	3048 pF
RG-8X	3.85 lb.	2667 pF

*These values are not identical to the published "nominal values" listed in the Belden catalog.

Each coax length was tested with PL-259 coax fittings attached. Capacitance measurements were made with a Beckman Model DM-31 Circuitmate multimeter.

10 Meter Beacons de K2OLG 09/16/87
provided by Dave Robbins, KY1H

Freq	Call	On	Location	Notes
28 050	PY2GOB		Sao Paulo	15W Vert
28 175	VE3TEN	C	Ottawa	10W, GP
29 195	IY4M		Bologna	20W, 5/8 GP
28 200	GB3SX	C	Crowborough	8W Dip
28 200	KF4MS	C	St Petersburg, FL	75W GP
28 201	LU8ED		Argentina	5W
28 2025	ZS5VHF		Natal	5W, GP 1850' ASL
28 205	DL0IGI	C	W Germany	100W, Vert Dip
28 2075	W8FKL	C	Venice FL	10W Vert
28 208	WA1IOB	C	Marlboro MA	75W Vert
28 210	3B8MS	C	Mauritius	GP
28 210	K4KMZ	I	Elizabethtown KY	20W Vert
28 212*	EA6ROM		Palmade Mallorca	4W 5 el NNE
28 2125	ZD9GI	C	Gough Is	GP
28 215	GB3RAL	C	Slough Berkshire	20W GP
28 215	LU4XI		Cape Horn	
28 2175	WB9MVY	C	Oklahoma City, OK	4W GP
28 220	5B4CY	C	Cyprus	26W GP
28 222	W9UXO	C	Chicago IL	10W, GP
28 2225	HG2BHA	C	Tapolca	10W, GP
28 2275	EA6EU		Mallorca	10W, 5/8 GP
28 230	ZL2MHF	C	Mt Climie, NZ	50W, Vert Dip
28 232	W7JPI/AZ	C	Sonoita, AZ	5W, 3 el Yagi NE
28 2325	KD4EC	C	Jupiter, FL	7W GP
28 235	VP9BA	C	Hamilton	10W GP
28 2375	LA5TEN	C	Oslo	10W 5/8 GP
28 240	OA4CK	C	Lima	10W
28 2405	5X4ERR		Kenya	
28 2425	ZS1CTB	C	Capetown	20W 1/4 Vert
28 245*	EA3JA		Barcelona	
28 245	A92C		Bahrain	NW/SE Dip
28 2475	EA2HB	I	Spain	6W GP
28 248	K1BZ	C	Belfast, ME	5W Vert Dip
28 250*	4N3ZHK		Yugoslavia	
28 250	Z21ANB	C	Bulawayo	15W, GP
28 252	WB4JHS	I	Durham NC	7W Vert
28 255	LU1UG		Gral Pico	5W GP
28 2575	DK0TE	C	Arbeitsgen	40W GP
28 260	VK5WI	C	Adelaide SA	10W GP
28 262	VK2RSY	C	Sydney NSW	25W GP
28 264	VK6RWA	C	Perth WA	
28 266	VK6RTW	C	Albany WA	
28 2685	W9KFO	I	Eaton IN	3/4W, Vert
28 270	ZS6PW	C	Pretoria	10W 3 el on G
28 270	VK4RTL	C	Townsville QLD	
28 2725	9L1FTN	I	Freetown	10W Vert Dip
28 275	AL7GQ	C	Jackson, MS	0 5/1W, loop
28 2775	DF0AAB	C	Kiel	10W GP
28 280	YV5AYV		Caracas	10W Rotary beam
28 280	LU8EB		Argentina	5W
28 282*	VE1MUF	C	Fredricton NB	500mW Dip
28 284	VP8ADE	C	Adelaide Is	8W, V Beam to G
28 286	KA1YE		NR Rochester, NY	2W Vert Dip
28 287	W8OMV		NR Ashville NC	5W GP
28 287	H44SI	C	Solomon Is	15W
28 288	W2NZH	I	Moorestown NJ	3W GP
28 290	VS6TEN	C	Hong Kong	10W, Vert
28 2925	LU2FFV		San Jorge	5W GP
28 295	WB8UPN	I	Cincinnati, OH	10W, Ringo
28 296	W3VD	C	Laurel MD	1 5W Vert Dip
28 297	WA4DJS	I	Ft Lauderdale, FL	10W 250 longwire
28 299	PY2AMI	C	Sao Paulo	10W Vert Dip
28 300	ZS1LA	C	Stillbay	20W 3 el Yagi NW
28 315	ZS6DN	C	Irene	100W Vert
28 288	W6IRT		California	5W, GP
28 992	DF0ANN			20mW Delta loop

* revision

Are We Not Being Clear Enough?
Joe Sego, KJ9D
(reprinted from **Hoosier Contesters**, vol. 3 # 3.)

Recently, while talking to a prospective new member, he stated " I enjoy contests but I could never compete against you guys with all the antennas, big towers, and the ability or freedom to go the distance." I stopped him right there and said that we weren't looking for guys to compete against us, we have plenty of those, we're looking for guys to help and compete *with* us.

He didn't know or understand that all of our scores combine into one for the club competition category. After I explained this to him he said "Well in that case, I'll join!" So, we have a new member and any number of QSOs he sends in will help us *all*.

Score Rumors:
Jeff DeTray, NK1F, YCCC Scorekeeper

The 1988 ARRL DX Contest is history, and the YCCC is looking good! As of this writing, 63 YCCC scores have been reported, totaling 42.5 Megs on CW and 33.2 Megs on Phone. That's a grand total of 75.7 Megs with a number of scores still to come. You'll recall we WON this thing last year with a paltry 42.7 Megs from 76 scores. The current results are encouraging, but we'll need every point, because scores in general are up. The top CW scores appear to be about 70% higher than 1987, while top Phone scores are up 90%. Club scores should be the best since 1981, when FRC hit a whopping 106.8 Megs to YCCC's 87.0 Megs. Thank you, sunspots!

Incidentally, many of the scores reported here are of the raw, unduped variety, thus subject to refinement. If you haven't sent me a copy of your ARRL scores (or even your CQWW scores), it's never too late. See the inside back page of the **Scuttlebutt** for the address and phone number. On packet, leaves messages on K1EA, KY1H-4, K1KI, or WA1FHB NTS BBS. Many thanks to all who helped gather scores. See you in the pileups!

Scores from non-YCCC stations and stations outside the YCCC club area are marked with an asterisk (*). Scores collected as of March 15, 1988:

ARRL DX CW:
Single-Op:

Call	Qs	Cs	Score
N1AFC (QRP 3w)	88	32	8K
NC1B	560	?	?
K1BW	2080	314	1 97M
AD1C	699	220	461K
KA1CI	700	183	386K
K1CLN	357	165	176K
WB1CNM	503	125	188K

K1EA	2411	316	2 2M
W1FJ	1143	247	846K
W1FV	334	64	64K
KA1GQW	800	180	432K
KM1H (KQ2M op)	2636	371	2933608
NO1I	?	?	332K
K1IU	1652	307	1 5M
W1KM	1460	95	416K
KA1KPH	56	23	3K
K1RX	?	?	1 2M
K1TO	2410	344	2 4M
W1WEF	1100	217	716K
K1YR	797	206	492K
N2BA*	1440	210	1 12M
K2FL*	250	113	84K
N2IC*	1728	274	1 4M
N2LT*	?	?	2K
N2MM*	2000	300	1 7M
W2REH*	1924	311	1 7M
K2SWZ*	?	?	48K
N3AD*	?	?	2K
K3IPK*	767	249	1 3M
K3NA*	1780	289	1 5M
K3OO*	?	?	2K
W3OV*	?	?	170K
N3RW*	?	?	8K
K3SA*	812	?	?
K3TUP* (K5ZD op)	2198	357	2 35M
W3UM*	?	?	1M
K3ZO*	2200	324	2 1M
WX4G*	2106	311	1 9M
N4RJ* (KM9P op)	1850	?	?
N4RZ*	1447	313	1 3M
K5NA	1771	310	1647030
NI9C* (QRP)	220	131	87K
NP4A* (K7JA op)	5745	337	5 8M
P40GD* (W2GD op)	6285	335	6 3M

Single-Op Single-Band:

Call	Band	Qs	Cs	Score
K1RU	20	1520	104	474K
N2AA*	20	1463	95	416K
K2TW*	20	1156	80	277K
K2VV	20	1560	102	477K
VO1QU*	20	1164	83	289K
K1XA	40	861	94	242K
K2EK	40	1170	96	336K
K8PO	40	803	90	216K
W1FV	80	334	84	84K
K1IK	80	288	59	50K
K1ZM	160	122	60	21K

Multi-Single:

Call	Qs	Cs	Score
K1AR (+net)	2247	387	2 6M
KM1C	1733	315	1 6M
W1GG (+net)	102	76	23K
KT1O (+net)	498	142	212K
W1PH (+net)	1446	314	1 3M
W1RR (+net)	1176	255	899K
K1TR (+net)	336	145	146K
K1VR	1817	275	1 5M
KA1X	805	219	528K
NF2L* (+K2BU)	1700	300	1 5M
WB3CAC* (+net)	?	?	620K
KS3F* (+NE3F)	?	?	557K
KB3MM*	1056	250	792K
K3ND* (+net)	238	139	99K
K3UC*	?	?	463K
K3UEI* (+net)	?	?	478K
K3VW* (+net)	800	150	360K
K3WW* (+net)	?	?	1 9M
W3XU* (+net)	2040	270	1 5M
K3ZA* (+W3MA)	1843	293	1 6M
K4VX*	1653	290	1 4M
PJ9J* (W1RM, W1BIH)	5743	333	5 7M

Multi-2:

Call	Qs	Cs	Score
KY1H	2630	358	2 8M
K1XM	1591	314	1 5M
N2MG*	2127	304	1 9M
K2NJ*	1800	296	1 5M
KQ2O*	1318	288	1 1M
W2RQ	2600	330	2 5M
K2TD*	?	?	667K
K2TR	3108	384	3 5M
N3RS	2900	425	3 7M
K8AZ*	2613	375	2 9M

Multi-Multi:

Call	Qs	Cs	Score
AA1K*	2693	371	1 6M
K1ST	3457	394	4 1M
W3GM*	2628	386	3M
W3LPL*	4300	482	6M
NR5M*	3344	456	4 5M

ARRL DX SSB:

Single-Op:

Call	Qs	Cs	Score
N1AFC (QRP 3W)	217	64	41K
W1AW (KJ4KB op)	393	114	134K
KM1C	415	159	208K
K1DG	1730	374	1 94M
KC1F	2256	392	2 6M
W1FJ	60	36	6K
NK1F	794	255	607K
KM1H	594	209	375K
W1RM	437	118	154K
KB1W	678	210	427K
K2EK	800	170	408K
N2MG*	2320	401	2 8M
W2RQ	1850	350	1 9M
K3LR*	1937	346	2M
K3NA*	835	286	716K
K3TUP*	2549	378	2 89M
KE3V*	524	216	339K
WX4G*	2028	371	2 2M
K4VX/0*	1357	296	1 2M
K5ZD/3*	1107	312	1 03M
K8NZ*	645	239	462K
KD9A*	1590	325	1 54M
K9ES*	54	42	6K
W9RE*	100	35	10K

Single-Op Single-Band:

Call	Band	Qs	Cs	Score
N2KW*	10	100	39	11K
W6UE*	10	520	66	102K
W2HPF*	15	766	104	238K
K4XS*	15	1653	110	545K
KA5W*	15	730	198	433K
NA8V*	15	1017	99	302K
KD2SX* (K1NG op)	20	1140	112	383K
N8CXX*	20	695	104	216K
K8PO	40	234	82	57K
N2NT	75	330	79	78K
KU8E*	75	170	69	35K
KW8N*	75	292	86	75K
WA4SVG*	160	108	53	17K

Multi-Single:

Call	Qs	Cs	Score
K1AR (+net)	2468	469	3.5M
W1BK (+ K1TXH)	220	107	70620
KM1C (+net)	415	159	208K
WB1CNM (+net)	111	53	17K
NK1F (+net)	794	255	606K
KA1GG	2288	376	2.6M
KM1H	594	209	375K
KY1H	1334	341	1.36M
K1IU	1366	339	1.3M
K1KA	1120	305	1M
W1PH (+net)	962	317	915K
K1VR	1392	352	1.5M
W2GD	750	312	702K
N5AU*	1569	402	1.9M
WB8K*	1650	312	1.5M
PJ9J*	8345	324	8.1M
P40X*	7173	282	6.07M
8P9X*	8900	335	9M

Multi-2:

Call	Qs	Cs	Score
KQ1F	630	303	572K
KA1GG	2288	376	2.5M
NB1H	2607	428	3.34M
N2MG*	2340	401	2.8M
K2TR	2855	497	4.25M
K8CC*	2368	397	2.82M
KP4BZ*	12050	331	11.9M

Multi-Multi:

Call	Qs	Cs	Score
W3LPL*	4000	566	6.5M
WM5G*	2587	474	4M
NR5M*	3378	490	4.97M
K5NA/2	2817	458	3.8M
K0RF*	2578	420	3.25M

Movers and Shakers

Update your club roster to show the following changes:

Dick, AK1A, has moved:

Dick Newell, AK1A
8 Golden Run Road
Bolton, MA 01740
home phone: (617)779-5198

New work phone numbers for Dick Pechie, KB1H: (203)824-5157 or (203)779-1900.

Stephen, ex-KA2ZPD, ex-N2GUV, ex-KE2BM, is now WB2Q.

New work phone number for Bruce Blain, K1BG, is (617)938-8444.

New Crew

Please welcome the following new and returning members who joined at the February meeting:

Donald V. Tanguay, N1BVZ
272 Bedford Street D1
Abington, MA 02351
home phone: (617)871-0598
work phone: (617)328-6155

Garry P. Anderson, Sr., WB1DGV
25 Pleasant Street
West Newbury, MA 01985
phone: (617)363-5335

John R. Fowler, KA1ION
945 Marion Road
Cheshire, CT 06410
phone: (203)272-0470

Philmore Smith, KA1MP
50 Woodbridge Lane
Westfield, MA 01085
home phone: (413)562-4731

T. Scott Johnson, KA1QXI
49 Goodnough Road
Chestnut Hill, MA 02167

Steven Elkind, KB1RB
41 Chase Avenue
Lexington, MA 02173
home phone: (617)862-6590
work phone: (617)568-4127

Bob De Bragga, W1RT
RFD # 1
Stonington, CT 06378
phone: (203)535-4097

Michael N. Raisbeck, K1TWF
85 High Street
Chelmsford, MA 01824
home phone: (617)250-1235
work phone: (617)256-6600 x 6427

John Sykes, Jr., KB1WH
196 Beacon Avenue
New Haven, CT 06512
home phone: (203)469-5938

Joe Hoodak, WA2LGT
148 Barretts Hill Road
Hudson, NH 03051

Charles Stover, KI2P
P. O. Box 487
Haydenville, MA 01039
home phone: (413)268-3822

John Hennessee, KJ4KB
83 Main St. Apt. 10-D
Newington, CT 06111
work phone: (203)666-1541

Bill Hamley, KC8PE
722 Yalesville Road
Cheshire, CT 06410
home phone: (203)272-6001
work phone: (203)828-4186

Eric Smiit, K9ES
10 Bowling Green Lane
Worcester, MA 01602
home phone: (617)752-9153

Jay Mabey, NU0X
54 Evergreen Road
Newington, CT 06111
home phone: (203)666-3940
work phone: (203)666-1541

Thank You!

...to Bill, KM1C, and Joe, KM1P, for locating and loaning a TS-930S to KM1H and KQ2M for their winning ARRL CW effort. Teamwork like this makes us a winning Club!

Congratulations!

...to John, K1AR, and his XYL, on the birth of their daughter.

...to Jeff, K1IU, and Terri, N1DTG, on their marriage.

...to Richard, K5NA, and Susan, KU2Q, on their marriage.

...to Dick, AK1A, on his engagement.

Local Events WMA Section
Dave Robbins, KY1H

Every Thursday: swap net on 28.303 MHz at 8pm local time.

1st Wednesday every month: HCRA volunteer exam sessions – contact KA1KPH.

4/6*: Start General license class 7pm
5/25* Volunteer exams 6pm, walk-in registration
Classes and exams will be at Pittsfield Civil Defense Building at 235 Tyler Street in Pittsfield. Park in back of building.

If there are enough interested people I will run fox hunts again this summer. For those who have not participated before, the hunts we have had so far have all been mobile hunts. The fox goes and parks somewhere in central Berkshire County and the hunters all start together from a central spot. The first person/team to find the fox gets to be the fox for the next one. I can also set up an off-road hunt for those that would like to tramp thru the woods. If you are interested in participating in fox hunts this summer, please contact me ASAP so I can schedule them and start advertising.

Help Wanted
Dave Robbins, KY1H

Field Day station captains and operators. It's not too early to get your reservations in for the WMA YCCC Field Day operation. If you think you want to be in charge of a station contact me before 1-May. Station locations will be assigned on a first-come, first-served basis; come early to get the prime spots by the pond or bathrooms! If you just want to come and help set up or operate let me know and I will pass your name to the station captains.

Press agent, for contacting press, radio, and TV to arrange publicity for ham radio classes and other events for the Western Mass. YCCC.

Room-mate. I have a spare bedroom for rent in my house in Peru, Mass. This features full use of the house and property. I have 30 acres of mostly wooded land including stocked farm pond and beaver ponds. Station includes TS-830S, Alpha 76, packet, 10-40M monobanders, 40 and 80M vertical arrays, 80 and 160M inverted Vees, and others. Rent $300/mo + 1/2 utilities (approx. $80/mo). Rent reduction available for help on antenna farm, or in garden during summer. Non-smoking only!

中国无线电运动协会
业 余 电 台 B Y 1 P K

台 长 童 效 勇

中 国 • 北 京
6 1 0 6 信 箱
(天坛内东里九号) 电话:755488

B Y 1 P K
Amateur Radio Station of
Chinese Radio Sporte Association

Tong Xiao—Yong
Director

P.O.Box 6106
Beijing,China Tel:755488

THE CLUB RESOURCES PAGE
THE Place to Find Club Information

DUES are due at the April election meeting, which begins our club "contest year", with a grace period until the end of June. Membership in the club will **lapse** at the end of the grace period if dues are not paid up. In order to re-join the club, a lapsed member must attend a meeting, like any new member, and be welcomed back into membership, or may become a subscriber to the **Scuttlebutt** by paying up (see below). Club members who move out of club territory and so are not eligible to contribute to club aggregate scores automatically become subscribers. New members who join at the last meeting of the club's contest year (February) are credited with dues for the following year (that is, the contest year beginning that April). You can tell if you owe dues by checking your **Butt** mailing label. Only paid-up members are eligible to contribute to the the club score in contests.

FAMILY MEMBERS Members of the same family living at the same address may elect to receive only one copy of the **Butt**. One member of the family must pay full dues, enabling the rest of the family to join as family members. Being a family member is currently free.

STUDENT MEMBERS Full-time students are eligible for dues at half the regular rate.

SCUTTLEBUTT SUBSCRIBERS Anyone may subscribe to the club newsletter, the **Scuttlebutt**. A subscription currently costs $10 per year. At the present time, overseas subscriptions cost the same as domestic (we have very few overseas subscribers). The subscription period begins at the beginning of the club year, in April. New subscribers who begin their subscriptions after the December issue are considered to have paid for the following year (that is, they receive as many issues as new members joining at that time do). You can tell if your subscription is current by checking your **Butt** mailing label. The grace period for late subscriptions is the same as for late memberships.

SCUTTLEBUTT ARTICLES should be sent to the **Scuttlebutt** editor, Paul Young, K1XM, 11 Michigan Drive, Hudson, MA 01749, home phone (617)562-5819. The deadline for each issue is three weeks before the next meeting.

CLUB JACKETS are available through Ed Kritsky, NT2X, 580 East 17th Street, Apt. 2F, Brooklyn, NY 11226, home phone (718)284-4493.

CLUB QSL CARDS are ordered through John Dorr, K1AR, 2 Baldwin Street, Windham, NH 03087, home phone (603)434-5661.

CLUB QSL CARD BADGES are available from Tom Frenaye, K1KI, 23 Pinehurst Road, Box 62, Unionville, CT 06085, home phone (203)673-5429, by sending him a club QSL card. The cost is $1 payable to the club treasurer on receipt of your badge.

PACKET NET information is available from Dick Newell, AK1A, 8 Golden Run Rd., Bolton, MA 01740, home phone (617)779-5198, or Dave Robbins, KY1H, Baumann Road, Peru, MA 01235, home phone (413)655-2714.

CONTEST SCORES are sent to the club scorekeeper, Jeff Detray, NK1F, P. O. Box 524, Troy, NH 03465, home phone (603)242-7995.

CLUB ROSTER appears in the summer issue of the **Scuttlebutt** every year. Updates are published when members move or change callsigns. If you want a new copy of the club roster, contact the club secretary/treasurer, Charlotte Richardson, KQ1F, 11 Michigan Drive, Hudson, MA 01749, home phone (617)562-5819.

CONTRIBUTIONS The YCCC welcomes your contributions, be it money to help offset the cost of the **Scuttlebutt** and club operations, scores for the club aggregate score, time spent helping other members, articles for the **Scuttlebutt**, or presentations at club meetings.

DXCC LIST The club maintains a one-page version of the ARRL DXCC Countries List. To get a copy, send an SASE to the club secretary, Charlotte Richardson, KQ1F, 11 Michigan Drive, Hudson, MA 01749. Complete DXCC rules are only available from the ARRL.

ARRL LIAISON For ARRL matters, contact Tom Frenaye, K1KI, 23 Pinehurst Road, Box 62, Unionville, CT 06085, home phone (203)673-5429.

The **Scuttlebutt** is the newsletter of the **Yankee Clipper Contest Club** and is mailed six times per year to all paid up members. Dues are $15 per year, payable 1 April with a grace period through 30 June. Non-members may subscribe to the **Scuttlebutt** by sending $10 to the Treasurer: Charlotte Richardson, KQ1F, 11 Michigan Drive, Hudson, MA 01749. Subscribers who subsequently become members will be credited as having paid dues.

The **Yankee Clipper Contest Club** (an ARRL Affiliated Club) holds six official meetings per year, on the Saturday or Sunday afternoon of the first full weekend of every even month in the Sturbridge, Massachusetts, area. The deadline for article submission to the **Scuttlebutt** is three weeks before the next meeting date. The next meeting will be on Saturday, April 9, 1988, in Sturbridge, Massachusetts. Attendance at an official meeting is *required* in order to become a member. Club members congregate on 3830 KHz after contests. The packet frequency is 144.95 MHz.

Rosters are mailed to all paid members each summer. For more information and/or assistance, contact the area manager nearest you on the following list:

Area	Call	Name	Home	Work
CT/RI	K1RU	Gene Frohman	(203) 393-1772	(203) 386-6137
EMass	N1AU	Bill Santelmann	(617) 862-1753	(617) 692-6000
WMass	KY1H	Dave Robbins	(413) 655-2714	(413) 494-2023
VT/NH	K1GW	Glen Whitehouse	(603) 673-6290	(603) 627-7877
ME	K1SA	Bernie Cohen	(207) 773-6589	(207) 797-3585
NNY	K2TR	Fred Lass	(518) 355-4813	(518) 346-6666
SNY/NJ	K2EK	Bill Gioia	(914) 221-1672	(203) 964-3554

YCCC
11 Michigan Drive
Hudson MA 01749

FIRST CLASS